

REMARKS

This Amendment is filed in response to the Office Action mailed Aug. 28, 2008. The Applicant respectfully requests reconsideration. All objections and rejections are respectfully traversed.

Claims 1-40 are pending in the application.

Claims 1, 17, 21, 23, 26, 27 and 33-39 have been amended.

No new claims have been added.

Claim Rejections - 35 U.S.C. §112 second paragraph

At paragraph 1 of the Office Action, claim 33 was rejected under 35 U.S.C. §112, second paragraph. Specifically, the phrase “the matching module” was rejected as lacking antecedent basis. The Applicant has amended claims 33 to recite “a matching module” and accordingly believes this rejection is now overcome.

Claim Rejections - 35 U.S.C. §101

At paragraph 1 of the Office Action, claims 1-40 were rejected under 35 U.S.C. §101.

Claims 1-16 were rejected for allegedly not being a statutory process under 35 U.S.C. §101. The Applicant respectfully requests reconsideration.

In Re Bilski set forth that “[a] claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *In re Bilski*, No. 2007-1130 at 10 (Fed. Cir. Oct. 30, 2008) (en banc). The Applicant’s claims 1-16 meet both prongs of this test and are thus statutory on multiple grounds.

The Applicant’s claim 1, representative in part also of claims 2-16, sets forth:

1. A method for managing a construction project comprising:
generating a ***computerized*** simulation model for the construction project representing project materials in the construction project;

mapping the project materials represented in the computerized simulation model into constructible elements;
determining at least one work step for each constructible element;
and
selecting at least one constructible element to create a work package in the **computerized** simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element.

First, the Applicant's claim 1 is tied to a particular machine or apparatus, namely it is tied to a computer. The Applicant recites "generating a **computerized** simulation model" and creating "a work package in the **computerized** simulation model." A computerized simulation model requires a computer. That is, a computerized simulation model is not merely an abstract idea that may be generated solely within the human mind, but requires the use of a computer. Accordingly, the Applicant respectfully urges that claim 1, and those dependent claims that depend therefrom, are statutory for at least this first reason.

Second, the Applicant's claim 1 transforms a particular article into a different state or thing. *In Re Bilski* makes clear that, to satisfy this prong of the test, the claim need not transform actual physical or tangible objects, but instead may transform electronic representations of physical or tangible objects. Specifically, *In Re Bilski* discusses a scenario where a claim involves "X-ray attenuation data produced...by a computer tomography scanner." *Id* at 26. *In Re Bilski* notes that to be statutory the claim need not recite a transformation of the bones, organs etc. which were X-rayed. Rather, the claim could simply recite a transformation of the electronic X-ray data representing these physical objects. *In Re Bilski* states "[w]e further note for clarity that the electronic transformation of the data itself into a visual depiction in Abele was sufficient; the claim was not required to involve any transformation of the underlying physical object that the data represented." *Id* at 27

The Applicant's claim 1 involves a transformation applied to a "computerized simulation model for the construction project **representing project materials in the**

construction project.” The simulation model, at least in part, represents physical or tangible objects, namely, real-world project materials. Transformations applied to the simulation model, such as “selecting at least one constructible element to create a work package in the computerized simulation model...”, are sufficient to render such claim statutory under the test set forth in *In Re Bilski*. Accordingly, the Applicant respectfully urges that claim 1, and those dependent claims that depend therefrom, are statutory for at least this second reason.

Claims 17-40 were rejected under 35 U.S.C. §101 as potentially reciting only software modules or program code.

The Applicant’s amended claim 17 now explicitly recites a system comprising “a central processor unit (CPU); and a memory electronically coupled to the CPU, the memory including an application for execution by the CPU....” Accordingly, the Applicant respectfully urges that claim 17, and those dependent claims that depend therefrom, are clearly not directed to only software and are thus statutory.

The Applicant’s amended claim 34 now explicitly recites a “computer readable medium storing computer program code for managing a construction project....” Accordingly, the Applicant respectfully urges that claim 34, and those dependent claims that depend there from, are clearly not directed to software disembodied from any tangible medium, and are thus statutory.

The Applicant’s amended claim 39 now explicitly recites a system comprising “a central processor unit (CPU).” Accordingly, the Applicant respectfully urges that claim 39, and those dependent claims that depend therefrom, are clearly not directed to only software, and are thus statutory.

Claim Rejections - 35 U.S.C. §103

At paragraphs 3-4 of the Office Action, claims 1-40 were rejected under 35 U.S.C. §103(a) over Schwegler et al., “New Information Technology Tools Enable Productivity Improvements,” 2000 North American Steel Construction Conference Proceed-

ings, 2000, pages 11-3 to 11-20 (hereinafter “Schwegler”) in view of Kroeger, U.S. Publication No. 2002/0165723 (hereinafter “Kroeger”).

The Applicant’s claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

1. A method for managing a construction project comprising:
 - generating a computerized simulation model for the construction project representing project materials in the construction project;
 - mapping the project materials represented in the computerized simulation model into constructible elements;
 - determining at least one work step for each constructible element;
 - and
 - selecting at least one constructible element to ***create a work package in the computerized simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element.***

Schwegler discusses a 4D modeling tool that “allows design and construction professionals to review and change the design and corresponding construction schedule at several levels of detail and in variety of computing environments....” *See* page 11-4, 3rd full paragraph. Schwegler comments that “[e]ffective staging and sequencing of work enables efficient use of resources and minimizes the waste of labor and materials. Interactive 4D models should respond to these practical needs by displaying not only the installation of components in the 3D model in their final position, but also by supporting a realistic evaluation of a proposed construction schedule.” *See* page 11-6, 3rd full paragraph.

Kroeger discusses a software package that “integrates [task] scheduling and document management into a single pro-active task oriented project management system.” *See* paragraph 0095 and 0096. “All elements of a project from inception to complete may be treated as tasks.” *See* paragraph 0106. “Initially a database of tasks is generated....” *See* paragraph 0023. Tasks are linked to documents in a document manager, for example, by HTML links. *See* paragraph 0106. The documents may be doc files, xls

files, pdf files, jpeg files, etc. *See* paragraph 0121. “[T]he aforementioned links may allow access to all documents required to complete the task.” *See* paragraph 0112.

The Applicant respectfully urges that both Schwegler and Kroeger are silent concerning the Applicant’s claimed ***“create a work package in the computerized simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element.”***

The Applicant novelly creates in the simulation model a special structure, termed a “work package”, which includes two different types of feature. First, the work package includes at least one constructible element, which project materials are mapped to. Second, the work package includes as least one work step for the at least one constructible element. Neither Schwegler, nor Kroeger suggest, creating any structures in a simulation model that include both a constructible element and a work step.

Schwegler merely discusses “4D models” that display “not only the installation of components in the 3D model in their final position” but also support “a realistic evaluation of a proposed construction schedule.” *See* Schwegler page 11-6, 3rd full paragraph. Schwegler does not create any structures in his 4D models that include both a constructible element and a work step. Indeed, the Examiner aggress Schwegler lacks any such teaching, commenting at page 4 of the Office Action “Schwegler does not explicitly disclose... create a work package comprising the at least one constructible element and the at least one work step for the at least one constructible element.”

The deficiencies of Schwegler are not remedied by combination with Kroeger. Kroeger does not create any structures in a simulation model that include both a constructible element and a work step. Rather, Kroeger simply creates a database of tasks. *See* Kroeger paragraph 0023. While Kroeger links his tasks, for example by HTML links, to documents in a document manager, this is quite different than what is claimed. Linking a task in a database to something else is quite different than creating a structure in a simulation model that includes both a task and another type of element. Similarly, a

document in a document manager is quite different than a constructible element in a simulation model. Thus, Kroeger does suggest what is also missing from Schwegler,

In summary, the Applicant respectfully urges that the combination of Schwegler and Kroeger is legally insufficient to make obvious the present claims under 35 U.S.C. §103(a) because neither reference teaches or suggests the Applicant's claimed novel *"create a work package in the computerized simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element."*

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend therefrom are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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